

Risk Factors¹

- Tobacco use and excessive alcohol use are the two major risk factors for developing oral cancer. Individuals who are heavy users of both tobacco and alcohol are at especially high risk.
- Infection with the human papillomavirus (HPV) may be the cause of some types of oral cancers.
- Steps that an individual can take to prevent oral cancer include not using tobacco products and limiting alcohol consumption.



Warning Signs and Symptoms¹

- Earlier symptoms include persistent growths or sores in the mouth or throat.
- Later symptoms include trouble chewing, swallowing, or moving the mouth.

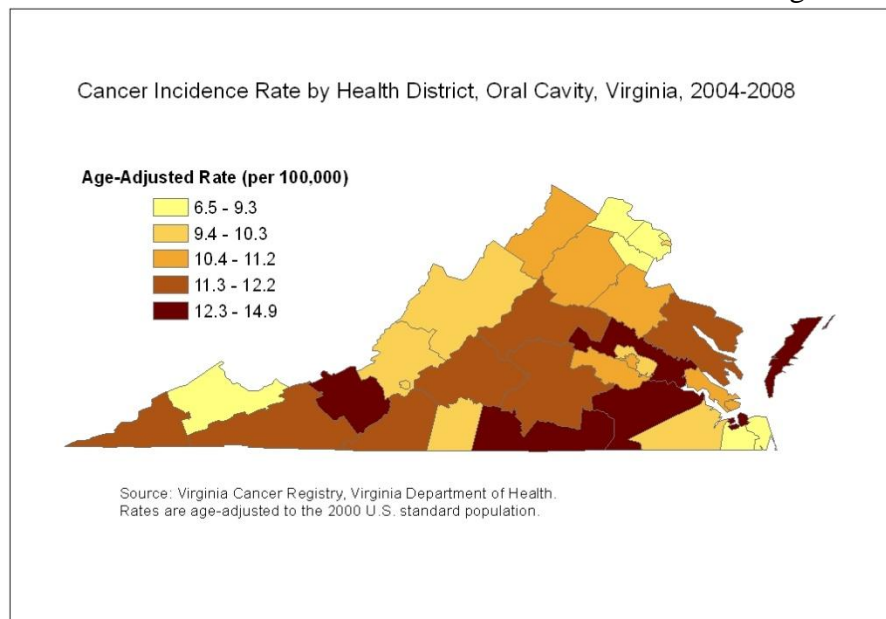
Early Detection¹

- An examination of the mouth and throat by a dentist or primary care physician

Oral Cancer Facts

- Oral cancer is among the top ten most commonly diagnosed cancers among men but not among women in the United States. It is relatively rare as a cause of death. Incidence and mortality rates in both men and women have fallen over the last couple of decades.¹
- Over the 2004-2008 time period, the incidence rate of oral cancer in Virginia was 10.4 cases per 100,000.² (U.S. rate=10.6 cases per 100,000)³
- Figure 1 shows incidence rates of oral cancer by health district in Virginia. Portsmouth, Eastern Shore, and Crater had the highest incidence rates of oral cancer among the 35 health districts.²
- Over the 2005-2009 time period, the mortality rate from oral cancer in Virginia was 2.2 deaths per 100,000.⁴ (U.S. rate=2.5 deaths per 100,000)⁵
- Incidence rates were higher in men (15.9 cases per 100,000) compared to women (5.7 cases per 100,000) in Virginia.

Figure 1

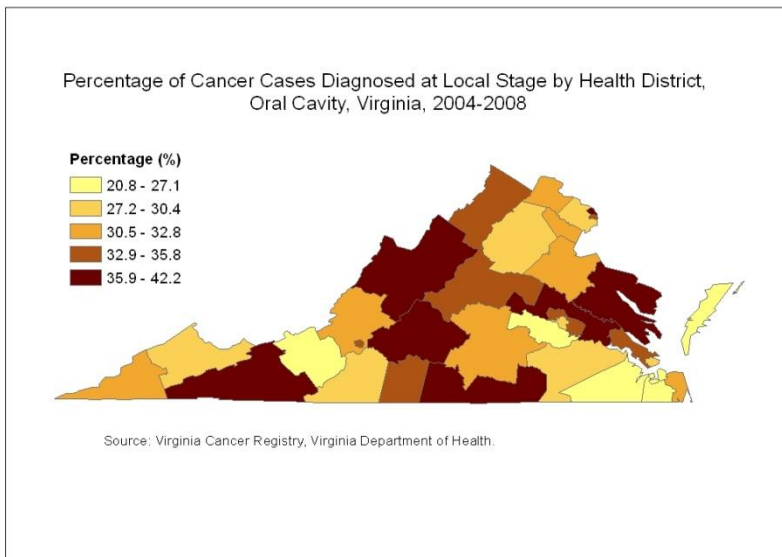


Oral Cavity Cancer in Virginia

The incidence rate was higher for African-American males (16.9 per 100,000) compared to white males (15.9 per 100,000) and was higher among white females (6.0 per 100,000) compared to African-American females (4.5 per 100,000).²

- Mortality rates were higher in men (3.6 deaths per 100,000) compared to women (1.2 deaths per 100,000) in Virginia. Mortality rates were similar for African-American and white females but were significantly higher for African-American males (5.6 deaths per 100,000) compared to white males (3.3 deaths per 100,000).⁴
- Oral cancer has a five-year relative survival rate of 82 percent if diagnosed in its earliest (local) stage when it is most curable.¹ In Virginia, 32 percent of oral cancer diagnosed was local stage.²

Figure 2



- Figure 2 shows the percentage of oral cancers diagnosed local stage by health district. Portsmouth, Norfolk, and Western Tidewater had the lowest percentages of oral cancer cases diagnosed local stage among the 35 health districts.²
- The percentage of oral cancers diagnosed local stage was lower for males (28%) compared to females (41%) and for African-Americans (22%) compared to whites (34%).²

Figure 3

- According to recent state health behavior survey data, about 4% of adults aged 18 years and older reported currently using smokeless tobacco, a major risk factor for oral cancer. About 43% of adults aged 40 years and older reported that they had an oral cancer examination in the previous year.⁶
- Figure 3 shows the prevalence of smokeless tobacco use by health district in Virginia. Lenowisco, Cumberland Plateau, and West Piedmont had the highest percentages of smokeless tobacco use among the 35 health districts.⁶

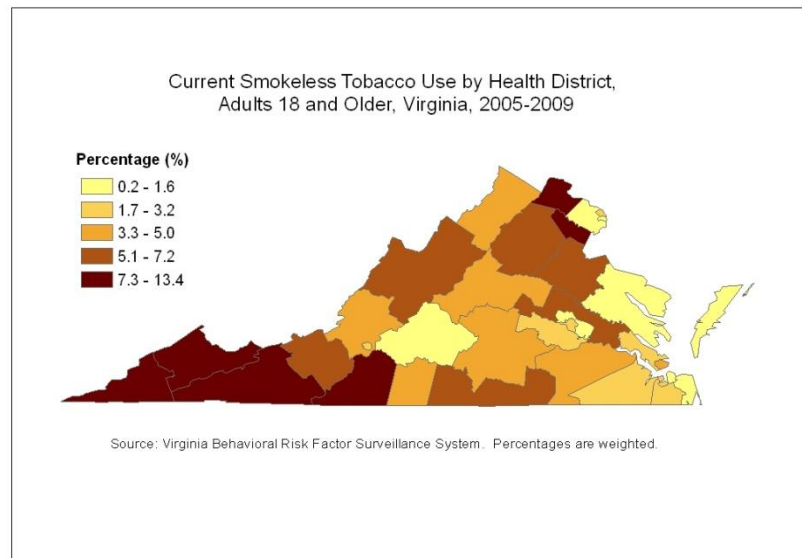
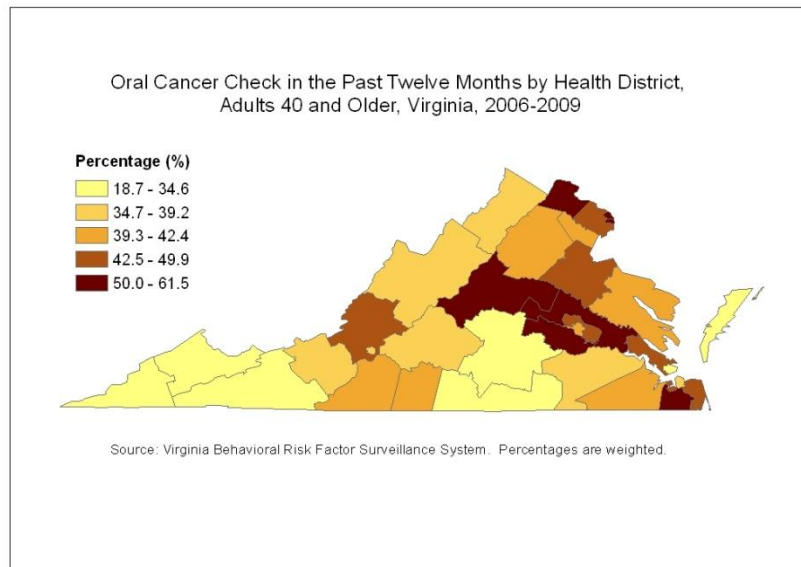


Figure 4



- Figure 4 shows the percentage of adults 40 years and older reporting an oral cancer examination in the previous year by health district in Virginia. Lenowisco, Cumberland Plateau, and Mount Rogers had the lowest prevalence of oral cancer screening among the 35 health districts.⁶
- Smokeless tobacco use was higher among whites (compared to African-Americans) and among adults who were less educated and lower income.⁶

- Oral cancer screening was less prevalent in African-Americans compared to whites and in adults who were less educated, lower income, and did not have insurance.⁶
- In Virginia in 2009, there were 387 inpatient hospitalizations for oral cavity cancer, at a total cost of close to \$20 million. The average length of stay was 6.3 days and the average charge per stay was \$51,392.⁷

¹American Cancer Society *Cancer Facts & Figures 2009* (<http://www.cancer.org>)

² Virginia Cancer Registry. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.

³ Howlander N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). *SEER Cancer Statistics Review, 1975-2008*, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.

⁴ VDH Division of Health Statistics. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.

⁵ Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National vital statistics reports; vol 58 no 19. Hyattsville, MD: National Center for Health Statistics. 2010. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf. National rate is the 2007 age-adjusted rate, which is comparable to the state five-year interval midpoint.

⁶ Virginia Behavioral Risk Factor Surveillance System. Data on smokeless tobacco use is from 2005 and 2009 (combined) and data on oral cancer screening from 2006 and 2009 (combined). Percentages are population-weighted.

⁷ VDH Virginia Health Information Hospital Discharge Patient-Level Dataset.